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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/585,099	09/28/2006	Klaus Endres	P30123	6063
7055 7590 10/21/2011 GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191				
EXAMINER EMPIE, NATHAN H				
ART UNIT		PAPER NUMBER		
1712				
NOTIFICATION DATE		DELIVERY MODE		
10/21/2011		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Advisory Action
Before the Filing of an Appeal Brief

Application No.

10/585,099

Applicant(s)

ENDRES ET AL.

Examiner

NATHAN EMPIE

Art Unit

1712

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 03 October 2011 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 4 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(g).

AMENDMENTS

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☒ They raise the issue of new matter (see NOTE below);
(c) ☒ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____
Claim(s) objected to: _____
Claim(s) rejected: 44-73 and 75-77.
Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____.
13. ☐ Other: _____.

/Nathan H Empie/
Primary Examiner, Art Unit 1712

Continuation of 3. NOTE: The scope of the independent as well as a significant number of dependant claims has been altered, requiring further consideration of the previous prior art applied and suitability of combinations of such prior art with respect to the altered claim scopes.

Claims 78, 96, and 107 raise 35 U.S.C. 112, second paragraph issues, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The recitation of "applying a coating layer at room temperature of up to 100°C" is indefinite as it becomes unsure if this is intended to require a temperature within a range of temperatures from room temperature to 100°C, or if requires 100°C, or if the drying must be ramped through temperatures including both room temperature and 100°C.

Claim 78 recites the claim limitations "from 350°C to 400" and "from 120°C to 500"; such ranges would selectively exclude temperatures below 350 / 120°C. Nowhere in applicant's specification is there support for such ranges selectively excluding temperature below 350°C / 120°C.

Continuation of 11, does NOT place the application in condition for allowance because:

Applicant's arguments filed with respect to Examiner's assertion of new matter with regard to applicant's 7/6/10 amendment of the claims have been fully considered but they are not persuasive. The examiner asserts that claims 44 and claims 58 recite the claim limitations "at least 350°C" and "at least about 120°C"; such ranges would cover all temperatures equal to and above 350°C and 120°C respectively. Nowhere in applicant's specification is there support for such ranges that would encompass temperatures including for example, 1000°C, 1500°C, 2000°C, etc; nor is, there support to selectively exclude temperature below 350°C / 120°C.

Applicant's remaining arguments filed 4/21/11 have been fully considered but they are not persuasive.

In response to applicant's argument that Menning and Horne are from two different fields (nonanalogous art) (pg 15-18 of remarks), it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See In re Oetiker, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Both Menning and Horne are in the field of applicant's endeavor namely the field of silica glass coatings formed from silica-forming precursor solutions. Further in response to applicant's argument that there is no teaching, suggestion, or motivation to combine the Menning and Horne references (pg 15-18 of remarks), the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and KSR International Co. v. Teleflex, Inc., 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, the references themselves have provided the motivation in that Menning has taught using organically modified silica precursors (specifically carbon containing, see, for example, col 2 lines 10-25) to produce the densified glass coatings. Horne has explicitly taught that conducting an intermediate densification process in an oxygen atmosphere at about 450°C would remove carbon contaminants in a method for producing of silica based glass coatings. As Menning is interested in forming dense silica coatings from precursors containing carbon, one of ordinary skill in the art would be motivated by the teaching of Horne as it would provide a means to remove such carbonaceous materials and aid/improve the densification of the final silica glass coating. With respect to arguments directed to specific embodiments of the Menning / Horne references "the prior art's mere disclosure of more than one alternative does not constitute a teaching away from any of these alternatives because such disclosure does not criticize, discredit, or otherwise discourage the solution claimed..." In re Fulton, 391 F.3d 1195, 1201, 73 USPQ2d 1141, 1146 (Fed. Cir. 2004). In general it becomes apparent from the teachings that intermediate heat treatments to remove organic contaminants from coatings formed from carbon containing precursor materials is well known in the art and one would be motivated to incorporate such a treatment for gains in the density of resulting article. In response to applicant's argument directed to deposition conditions and final heating temperatures taught in Horne (pg 15 of remarks), the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). The examiner asserts that Menning is the primary reference in the rejection, and Horne has only been relied upon for its teaching that it is well known in the art to conduct an intermediate heat treatment in oxygen to remove carbonaceous materials. The examiner has not relied upon or incorporated any pre or post treatment processes of Horne, as such conditions have been taught by the primary reference. Therefore applicant's arguments directed toward such pre/ post treatments of Horne are unconvincing. In response to applicant's argument that Menning and Loxley are nonanalogous art (pg 19-23 of remarks), it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See In re Oetiker, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Both Menning and Loxley are in the field of applicant's endeavor namely the field of silica glass coatings formed from silica-forming precursor solutions densified in inert atmospheres. Further in response to applicant's argument that there is no teaching, suggestion, or motivation to combine the Menning and Loxley references (pg 19-21 of remarks), the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and KSR International Co. v. Teleflex, Inc., 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, the references themselves have provided the motivation in that Menning has taught using a hydrolyzed modified silica precursor to produce the densified glass coatings using final densification in inert atmosphere. Loxley has explicitly taught that conducting an intermediate densification process in a vacuum environment would improve the densification of the final sintered silica based glass coatings. As Menning is interested in forming dense silica coatings from precursors involving densification in inert atmosphere, one of ordinary skill in the art would be motivated by the teaching of Loxley as it would provide a means to improve the densification of the final silica glass coating.

In response to applicant's argument directed to final heating temperatures taught in Loxley (pg 15), the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the

references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). The examiner asserts that Menning is the primary reference in the rejection, and Loxley has only been relied upon for its teaching that it is well known in the art that when performing final densification in inert atmosphere (as is present in Menning), it is beneficial to conduct an intermediate heat treatment in vacuum to improve densification. The examiner has not relied upon or incorporated any post treatment / final densification processes of Loxley, as such conditions have been taught by the primary reference, therefore applicant's arguments directed toward such post treatments of Loxley are unconvincing.

As to the dependent claims, they remain rejected as no separate arguments are provided. The examiner maintains the final rejection of 6/14/11.